WHAT IS CLAIMED IS:

1.   A method for allocating use of an access device between a host operating system and a guest operating system, the method comprising:

determining whether a received request to use the access device is from the host operating system;

determining whether one of the host operating system and the guest operating system has a key for the access device, where the key enables one of the host operating system and the guest operating system to use the access device;

determining the request as one of an altering request to change a state of the access device and a passive request to read the access device,

accepting the request from the host operating system, if the request is an altering request from the host operating system and neither the host operating system nor the guest operating system has the key; and

rejecting the request from the guest operating system, if the request is an altering request from the guest operating system and neither the host operating system nor the guest operating system has the key.

2.   The method of claim 1 further comprising:

accepting the request from one of the host operating system and the guest operating system having the key.

3.   The method of claim 2 wherein the guest operating system releases the key after use of the access device to enable a transient use of the access device.

4.   The method of claim 1 further comprising:

rejecting, if one of the host operating system and the guest operating system has the key, the request from the other operating system.

5.   The method of claim 1 further comprising:

accepting the request from one of the host operating system and the guest operating system, if the request is a passive request and neither the host operating

system nor the guest operating system has the key.

6.   The method of claim 1 wherein the request is passed to an access interface coupled to the access device.

7   The method of claim 6 wherein the access interface converts the passed request into a format suitable for the access interface.

8.   The method of claim 6 wherein the access interface comprises an input/output (I/O) adapter and the access device comprises a writable disk drive.

9.   The method of claim 6 wherein the passed request comprises a SCSI (Small Computer System Interface) command.

10.   The method of claim 9 wherein the SCSI command comprises one of a PAUSE/RESUME command, a PLAY AUDIO(10) command, a PLAY AUDIO(12) command and a PLAY AUDIO TRACK/INDEX command.

11.   The method of claim 1 wherein the host operating system and the guest operating system are of different types.

12.   The method of claim 1 wherein at least one of the host operating system and the guest operating system is one of OS/400, Windows NT, Linux, UNIX, AIX, Microsoft Windows, and Windows NT.

13.   The method of claim 1 wherein the access device is considered locked to a particular operating system if the particular operating system has the key, where the particular operating system is one of the host operating system and the guest operating system.

14.   The method of claim 1 further comprising:
          determining whether a received request to release the key is from one of the

host operating system and the guest operating system having the key;

releasing the key from the one of the host operating system and the guest operating system having the key;

sending a reset signal to the host operating system and the guest operating system, where the reset signal causes the host operating system and the guest operating system to reset a state of an associated cache memory.

15.   The method of claim 14 wherein the reset signal simulates a change of the access device.

16.   The method of claim 1 wherein the request from the guest operating system is for a capability of the access device that is supported by the guest operating system and unsupported by the host operating system.

17.   A method for allocating use of an access device between a host operating system and a guest operating system, the method comprising:

receiving a request from the host operating system to use the access device;

determining whether the guest operating system has a key for the access device, where the key enables one of the host operating system and the guest operating system to use the access device; and

accepting the request from the host operating system, if no key is found with the guest operating system.

18.   The method of claim 17 further comprising:

determining whether the host operating system has the key;

accepting the request from the host operating system, if the key is found with the host operating system.

19.   The method of claim 18 further comprising:

determining, if no key is found with one of the host operating system and the guest operating system, whether the request is an altering request to change a state of the access device; and

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granting the key to the host operating system, if the request is an altering request.

20. The method of claim 17 further comprising:

rejecting, if the key is found with the guest operating system, the request from the host operating system.

21. A method for allocating use of an access device between a host operating system and a guest operating system, the method comprising:

receiving a request from the guest operating system;

determining whether the guest operating system has a key for the access device, where the key enables one of the host operating system and the guest operating system to use the access device;

determining whether the host operating system ahs the key;

determining the request as one of an altering request to change a state of the access device and a passive request to read the access device,

accepting the request from the guest operating system, if the request is an altering request from the guest operating system and neither the host operating system nor the guest operating system has the key; and

rejecting the request from the guest operating system, if the request is an altering request from the guest operating system and neither the host operating system nor the guest operating system has the key.

22. The method of claim 21 further comprising:

accepting the request from the guest operating system, if the key is found with the guest operating system; and

rejecting the request from the guest operating system, if key is found with another operating system.

23. The method of claim 22 wherein the another operating system comprises one of a host operating system and another guest operating system.

24.   An apparatus for allocating use of an access device between a host operating system and a guest operating system, the apparatus comprising:

a memory for storing a sharing management program and the host operating system, where the sharing management program communicates with the host operating system and the guest operating system; and

a processor, upon executing the sharing management program, the processor is configured to:

determine whether a received request to use the access device is from the host operating system;

determine whether one of the host operating system and the guest operating system has a key for the access device, where the key enables one of the host operating system and the guest operating system to use the access device;

determine the request as one of an altering request to change a state of the access device and a passive request to read the access device,

accept the request from the host operating system, if the request is an altering request from the host operating system and neither the host operating system nor the guest operating system has the key; and

reject the request from the guest operating system, if the request is an altering request from the guest operating system and neither the host operating system nor the guest operating system has the key.

25.   The apparatus of claim 24 further comprising:

an access interface for converting the accepted request into a format suitable for the access device.

26.   The apparatus of claim 24 wherein the access device comprises a writable disk drive and is coupled to the access interface via an input/output (I/O) adapter.

27.   The apparatus of claim 26 wherein the accepted request is sent to the access interface as a SCSI (Small Computer System Interface) command.

28.   The apparatus of claim 27 wherein the SCSI command comprises one of a PAUSE/RESUME command, a PLAY AUDIO(10) command, a PLAY AUDIO(12) command and a PLAY AUDIO TRACK/INDEX command.

29.   The apparatus of claim 24 wherein the host operating system and the guest operating system are of different types.

30.   The apparatus of claim 24 wherein at least one of the host operating system and the guest operating system is one of OS/400, Windows NT, Linux, UNIX, AIX, Microsoft Windows, and Windows NT.

31.   The apparatus of claim 24 wherein the host operating system and the guest operating system are part of a logically partitioned system.

32.   The apparatus of claim 24 wherein the host operating system and the guest operating system are contained in separate computer systems.

33.   The apparatus of claim 24 wherein the request from the guest operating system is for a capability of the access device that is supported by the guest operating system and unsupported by the host operating system.

34.   A computer readable medium storing a software program that, when executed by a computer, causes the computer to perform a method comprising:
    determining whether a received request to use the access device is from the host operating system;
    determining whether one of the host operating system and the guest operating system has a key for the access device, where the key enables one of the host operating system and the guest operating system to use the access device;
    determining the request as one of an altering request to change a state of the access device and a passive request to read the access device,
    accepting the request from the host operating system, if the request is an altering request from the host operating system and neither the host operating

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system nor the guest operating system has the key; and

rejecting the request from the guest operating system, if the request is an altering request from the guest operating system and neither the host operating system nor the guest operating system has the key.

35.   The computer readable medium of claim 34 wherein the method further comprises:

accepting the request from one of the host operating system and the guest operating system having the key.

36.   The computer readable medium of claim 35 wherein the guest operating system releases the key after use of the access device to enable a transient use of the access device.

37.   The computer readable medium of claim 34 wherein the method further comprises:

rejecting, if one of the host operating system and the guest operating system has the key, the request from the other operating system.

38.   The computer readable medium of claim 34 wherein the method further comprises:

accepting the request from one of the host operating system and the guest operating system, if the request is a passive request and neither the host operating system nor the guest operating system has the key.

39.   The computer readable medium of claim 34 wherein the request is passed to an access interface coupled to the access device.

40.   The computer readable medium of claim 39 wherein the access interface converts the passed request into a format suitable for the access device.

41.   The computer readable medium of claim 39 wherein the access interface

comprises an input/output (I/O) adapter and the access device comprises a writable disk drive.

42.   The computer readable medium of claim 39 wherein the passed request comprises a SCSI (Small Computer System Interface) command.

43.   The computer readable medium of claim 42 wherein the SCSI command comprises one of a PAUSE/RESUME command, a PLAY AUDIO(10) command, a PLAY AUDIO(12) command and a PLAY AUDIO TRACK/INDEX command.

44.   The computer readable medium of claim 34 wherein the host operating system and the guest operating system are of different types.

45.   The computer readable medium of claim 34 wherein at least one of the host operating system and the guest operating system is one of OS/400, Windows NT, Linux, UNIX, AIX, Microsoft Windows, and Windows NT.

46.   The computer readable medium of claim 34 wherein the access device is considered locked to a particular operating system if the particular operating system has the key, where the particular operating system is one of the host operating system and the guest operating system.

47.   The computer readable medium of claim 34 wherein the method further comprises:

determining whether a received request to release the key is from one of the host operating system and the guest operating system having the key;

releasing the key from the one of the host operating system and the guest operating system having the key;

sending a reset signal to the host operating system and the guest operating system, where the reset signal causes the host operating system and the guest operating system to reset a state of an associated cache memory.

48.   The computer readable medium of claim 47 wherein the reset signal simulates a change of the access device.

49.   The computer readable medium of claim 34 wherein the request from the guest operating system is for a capability of the access device that is supported by the guest operating system and unsupported by the host operating system.